

FORM PDP-1449 (Based on Form PTO-1449)

**PATENT AND TRADEMARK OFFICE  
INFORMATION DISCLOSURE CITATION**

(Use several sheets if necessary)

Sheet 1 of 3

ATTORNEY DOCKET No.

2115D-002758

SERIAL No.

10/752,604

APPLICANT

Donald Umstadter et al.

FILING DATE

January 7, 2004

GROUP

Unknown

**U.S. PATENT DOCUMENTS**

Ref. Desig.	Examiner's Initials	Document Number	Date	Name	Class/ Subclass	(If appropriate) Filing Date
1.	ALC	5,198,674	03/30/1993	Underwood		
2.		5,353,291	10/04/1994	Sprangle et al.		
3.		5,606,588	02/25/1997	Umstadter et al.		
4.		5,637,966	06/10/1997	Umstadter et al.		
5.		5,789,876	08/04/1998	Umstadter et al.		
6.		5,892,810	04/06/1999	Sprangle et al.		
7.		6,332,017	12/18/2001	Carroll et al.		
8.	ALC	6,624,880	09/23/2003	Sandström et al.		

**FOREIGN PATENT DOCUMENTS**

Ref. Desig.	Examiner's Initials	Document Number	Date	Country	Class/ Subclass	Translation Yes	No
1.		NONE					

**OTHER DOCUMENTS (including Author, Title, Date, Pertinent Pages, etc.)**

Ref. Desig.	Examiner's Initials	
1.	ALC	A. Gover and P. Sprangle. "A Unified Theory of Magnetic Bremsstrahlung, Electrostatic Bremsstrahlung, Compton-Raman Scattering, and Cerenkov-Smith-Purcell Free-Electron Lasers." IEEE Journal of Quantum Electronics, QE-17:1196, 1981.
2.	ALC	D. Umstadter. "Laser-driven x-ray sources." 2003 Yearbook in Science and Technology. McGraw-Hill, New York, 2003.
3.	ALC	E. Jerby and A. Gover. "Investigation of the Gain Regimes and Gain Parameters of the Free Electron Laser Dispersion Equation." IEEE Journal of Quantum Electronics, QE-21:1041, 1985.

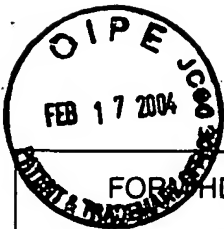
Examiner:

A. Rodriguez

Date Considered:

1-20-07

EXAMINER: Please initial if citation considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.



FORM HDP-1449 (Based on Form PTO-1449)

**PATENT AND TRADEMARK OFFICE**  
**INFORMATION DISCLOSURE CITATION**  
(Use several sheets if necessary)

Sheet 2 of 3

ATTORNEY DOCKET No.	SERIAL No.
2115D-002758	10/752,604
APPLICANT	
Donald Umstadter et al.	
FILING DATE	GROUP
January 7, 2004	Unknown

**OTHER DOCUMENTS (including Author, Title, Date, Pertinent Pages, etc.)**

Ref. Desig.	Examiner's Initials	
4.	MC	E. S. Sarachik and G. T. Schappert. "Classical Theory of the Scattering of Intense Laser Radiation by Free Electrons." Phys. Rev. D, 1:2738, 1970.
5.		F. He, Y. Y. Lau, D. P. Umstadter, and R. Kowalczyk. "Backscattering of an Intense Laser Beam by an Electron." Phys. Rev. Lett., 90:055002, 2003.
6.		F. He, Y. Y. Lau, D. P. Umstadter, and T. Strickler. "Phase dependence of Thomson scattering in an ultraintense laser field." Physics of Plasmas, 9:4325, 2002.
7.		M. I. K. Santala, Z. Najmudin, E. L. Clark, M. Tatarskie, K. Krushelnick, A. E. Dangor, V. Malka, J. Faure, R. Allott, and R. J. Clarke. "Observation of a Hot High-Current Electron Beam from a Self-Modulated Laser Wakefield Accelerator." Phys. Rev. Lett., 86:1227, 2001.
8.		M. M. Kekez. "Simple sub-50-ps rise-time high voltage generator." Rev. Sci. Instr., 62:2923, 1991.
9.		M. Zolotarev. "Laser driven attosecond SASE X-ray FEL." Nuclear Instr. and Methods in Phys. Research A, 483:445, 2002.
10.		P. Catravas, E. Esarey and W. P. Leemans. "Femtosecond x-rays from Thomson scattering using laser wakefield accelerators." Meas. Sci. Technol. 12:1828, 2001.
11.		R. Wagner, S. Y. Chen, A. Maksimchuk, and D. Umstadter. "Electron Acceleration by a Laser Wakefield in a Relativistically Self-Guided Channel." Phys. Rev. Lett., 78:3125, 1997.
12.		S. Banerjee, A. R. Valenzuela, R. C. Shah, A. Maksimchuk, and D. Umstadter. "High harmonic generation in relativistic laser-plasma interaction." Physics of Plasmas, 9:2399, 2002.
13.		S. Banerjee, A. R. Valenzuela, R. C. Shah, A. Maksimchuk, and D. Umstadter. "High-harmonic generation in plasmas from relativistic laser-electron scattering." J. Opt. Soc. Am. B, 20, 2003.
14.		S. D. Baton, et al. "Evidence of Ultrashort Electron Bunches in Laser-Plasma Interactions at Relativistic Intensities." Phys. Rev. Lett., 91:105001, 2003.
15.	AK	S. V. Bulanov, F. Pegoraro, A. M. Pukhov, and A. S. Sakharov. "Transverse-Wake Wave Breaking." Phys. Rev. Lett., 78:4205, 1997.

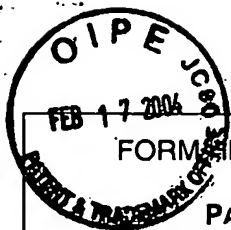
Examiner:

*A. Rodriguez*

Date Considered:

*1-20-07*

EXAMINER: Please initial if citation considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.



FORM PDP-1449 (Based on Form PTO-1449)

**PATENT AND TRADEMARK OFFICE  
INFORMATION DISCLOSURE CITATION**

(Use several sheets if necessary)

Sheet 3 of 3

ATTORNEY DOCKET No.	SERIAL No.
2115D-002758	10/752,604
APPLICANT	
Donald Umstadter et al.	
FILING DATE	GROUP
January 7, 2004	Unknown

**OTHER DOCUMENTS (including Author, Title, Date, Pertinent Pages, etc.)**

Ref. Desig.	Examiner's Initials	
16.	AK	S. V. Mitko, Y. B. Udalov, P. J. M. Peters, V. N. Ochkin, and K. J. Boller. "Generation of powerful electron beams in a dense gas with a dielectric-barrier-discharge-based cathod." Appl. Phys. Lett., 83:2760, 2003.
17.	I	S. Y. Chen, A. Maksimchuk, and D. Umstadter. "Experimental observation of nonlinear Thomson scattering." Nature, 396:653, 1998.
18.	I	T. Sekikawa, T. Kanai, and S. Watanabe. "Frequency-Resolved Optical Gating of Femtosecond Pulses in the Extreme Ultraviolet." Phys. Rev. Lett., 91:103902, 2003.
19.	I	V. Malka, et al. "Electron Acceleration by a Wake Field Forced by an Intense Ultrashort Laser Pulse." Sciences, 298:1596, 2002.
20.	I	Y. Salamin and F. M. H. Faisal. "Harmonic generation by superintense light scattering from relativistic electrons." Phys. Rev. A, 54:4383, 1996.
21.	AV	Y. Y. Lau, F. He, D. Umstadter, and R. Kowalczyk. "Nonlinear Thomson scattering: A tutorial." Physics of Plasmas, 10:2155, 2003.

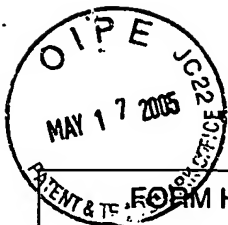
Examiner:

*A. Rodriguez*

Date Considered:

*1-20-07*

EXAMINER: Please initial if citation considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.



FORM HDP-1449 (Based on Form PTO-1449)

**PATENT AND TRADEMARK OFFICE  
INFORMATION DISCLOSURE CITATION**

(Use several sheets if necessary)

Sheet 1 of 1

ATTORNEY DOCKET NO.

2115D-002758

SERIAL NO.

10/752,604

APPLICANT

Donald Umstadter et al.

FILING DATE

January 7, 2004

GROUP

1752

**U.S. PATENT DOCUMENTS**

Ref. Desig.	Examiner's Initials	Document Number	Date	Name	Class/ Subclass	(If appropriate) Filing Date
1.	AL	5,541,944	07/30/1996	Neil		
2.	AL	6,333,966	12/25/2001	Schoen		

**FOREIGN PATENT DOCUMENTS**

Ref. Desig.	Examiner's Initials	Document Number	Date	Country	Class/ Subclass	Translation Yes	No
1.		NONE					

**OTHER DOCUMENTS (including Author, Title, Date, Pertinent Pages, etc.)**

Ref. Desig.	Examiner's Initials	
1.		

Examiner:

A. Rodriguez

Date Considered:

1-20-07

EXAMINER: Please initial if citation considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.